Resource Consumption: A Problem Students Can Change

Bruny Mora (1,2), Dominic Porraz (1,2), Evelyn Martinez (1,2), Jackeline Castorena (1,2) Richard Lopez (1,2)

1). Pajaro Valley High School, Watsonville, CA
2). WATCH (Watsonville Area Teens Conserving Habitats) Program, Monterey Bay Aquarium

Introduction

In our project for WATCH (Watsonville Area Teens Conserving Habitats) the environmental issue we are addressing is the conservation of resources such as energy, water, and gasoline. Our group is interested in these resources because we feel as if people don't take these resources into consideration. If we continue to pump fuel for transportation, at the current rate, we will completely run out of it in a few decades. A regular light bulb uses about 100 watts per year, when a florescent light bulb uses only 18 watts. Another thing they need to consider is that 99.35% of our water is ocean water or in frozen ice caps or alaciers, which means that we have a very limited amount of drinkable water. When we chose our group research project, we started planning everything around one question, "How much of our resources do we use daily and how much can we reduce the amount we use?" This question guided us through our project. Answering this was important for our group because we wanted to know how much we affected people and the way they behave when it comes to resources. Knowing how much we changed people's opinions about resources really makes us feel like we accomplished our goal.

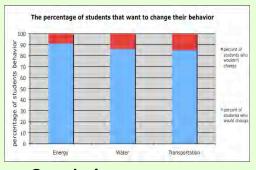


Materials and Methods

Our team used various technologies to complete our project. Our project involved a pre-survey, a presentation, and a post-survey. We started by using a computer program called Inspire Data to make a survey and collect data about student consumption of water, gasoline and energy. We then went to 4 advisory classes and had them take the survey. We chose a variety of grade levels to represent all the grades at Pajaro Valley High School and gave them the presurvey to see how much of our resources they waste. Some things we told them to do were to turn off lights when no one is in the room, turn off water faucets when you don't really need the water, like when you are brushing your teeth and finally plan your trip before you go out so that you do not waste gas. The survey helped us determine what we should put in the classroom presentation. Our presentation included information about the way we use water, fuel, and energy.

Results

Our group gave pre and post surveys to four different classes with students of different grade levels . In the pre-survey we found out that many of our fellow students used water, energy, and gasoline inefficiently. Later we gave the post-survey and we found out that a huge percentage of the students would like to change their behavior on how they use energy, water, and gasoline. Ninety-one percent of the students said they would change on how they use energy. Eighty-six percent said they would change on how they use water. Eighty-five percent said they would change on how they consume gasoline.



Conclusion

In our whole project, we found out countless things about the way people look at resources. At first, in the presurvey, we noticed that a variety of students don't fully understand the way they use resources on a daily basis. Everything went great and many people were captivated by our use of facts in the PowerPoint. When we got the data, we noticed that our presentation turned out to be quite a success, for the most part. Many people were interested, like we thought they would be, and everyone gave us some ideas on what they would do to save resources from now on. We felt quite accomplished because of the way we affected most of the students. We hope that in the future students use the information that we provided for them and apply it in their life.



Literature Cited

Botkins, Daniel and Keller, Edward.

Environmental Science: "Earth as a living planet" Hoboken,NJ. John Wiley & Sons,inc., 2007.

http://www.epa.gov/smartway. October 2006. Smartway transport partnership of U.S environmental protection agency. October 2006.

http://www.sptimes.com. 2006. St. Petersburg times. September 22,2008



Acknowledgements

We would like to thank the Monterey Bay Aquarium staff along with our mentor, Linda Kuhnz, senior research technician at the Montrerey Bay Aquarium Research Institute, also known as MBARI who helped us stay on task and gave us a lot of great ideas. Mele Wheaton who helped us with all our computer problems. Special thanks to the students and teachers of the advisory classes we went to because they were so supportive. Finally, to Gary Martindale who let us borrow his classroom for any WATCH activities, whether it be group meetings or the whole WATCH program.

Further Information

If you want more tips go to these websites: www.energytomorrow.org www.americanrivers.org/siters/savegas.net www.gassaverguide.net www.pae.com/about/